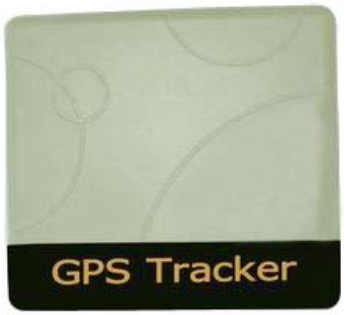
GSM/GPRS/GPS TRACKER USER MANUAL



Preface

Thank you for purchasing GPS Tracker. This manual shows how to operate the device smoothly and correctly. Make sure to read this manual carefully before using this product. Please note that specification and information are subject to changes without prior notice in this manual. Any change will be integrated in the latest release. The manufacturer assumes no responsibility for any errors or omissions in this document.

Content

1 Summary ---------- 3

2 Application ---------- 3

3 Hardware description

3.1 Front face ---------- 3

3.2 Rear face ---------- 3

3.3 Side face ---------- 3

3.4 Bottom face ---------- 4

3.5 Interior ---------- 4

4 Specifications ---------- 4

5 Usage

5.1 SIM card installation ---------- 5

5.2 Battery and Charger ---------- 5

5.3 Quick Startup ---------- 6

5.4 Initialization ---------- 6

5.5 Change the password ---------- 6

5.6 Authorization ---------- 7

5.7 Real-time polling ---------- 7

5.8 Auto track ---------- 8

5.9 Voice Surveillance ---------- 8

5.10 Modes switch between “track” and “monitor” ---------- 8

5.11 Geo-fence ---------- 8

5.12 Movement Alert ---------- 9

5.13 Overspeed Alert ---------- 9

5.14 IMEI Check ---------- 9

5.15 SOS Button ---------- 10

5.16 Low battery alert ---------- 10

5.17 Hidden number tracking ---------- 10

5.18 SMS center ---------- 10

5.19 GPRS setting ---------- 11

6 Cautions ---------- 11

7 Faults & Solutions ---------- 11

1 Summary

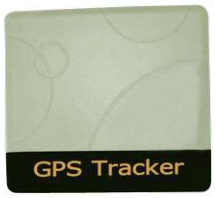
Working Based on existing GSM/GPRS network and GPS satellites, this product can locate and monitor any remote targets by SMS or GPRS.

2 Applications

- Rental vehicle / Fleet management etc
- Protect the child / the old / the disabled / pet etc
- Provide peace-of-mind for businessmen
- Personnel management
- Covert Tracking

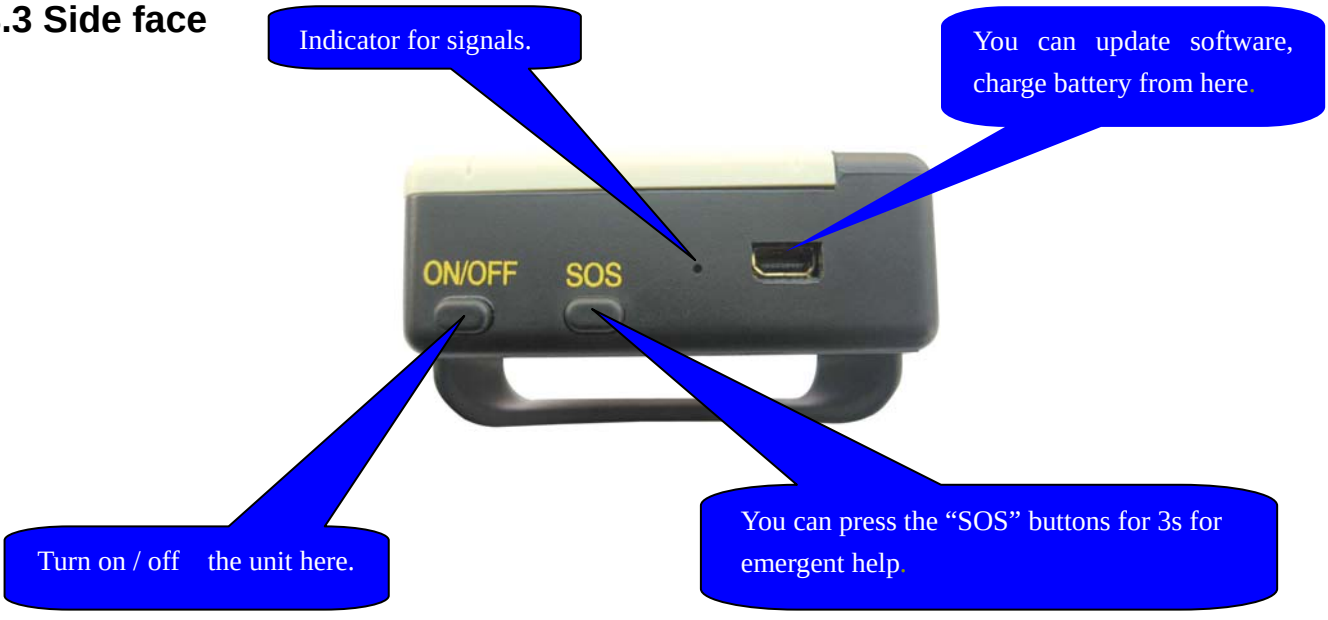
3 Hardware Description

3.1 Front face

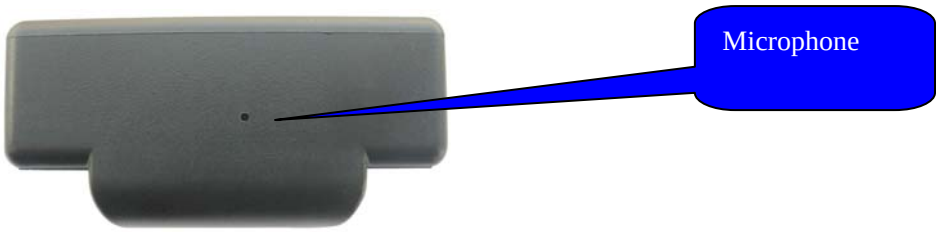


3.2 Rear face

3.3 Side face


Indicator for signals.
You can update software, charge battery from here.
ON/OFF
SOS
Turn on / off the unit here.
You can press the “SOS” buttons for 3s for emergent help.

3.4 Bottom face



3.5 Interior

Install the battery like this.

4 Specs.

Content	Specs.
Dim.	51mm x 46mm x 17mm
Weight	45g
Network	GSM/GPRS
Band	850/1800/1900Mhz or 900/1800/1900Mhz
GPS chip	SIRF3 chip
GSM/GPRS module	Siemens MC55/Siemens MC56 or Simcom300/Simcom340
GPS sensitivity	-159dBm
GPS accuracy	5m
Time To First Fix	Cold status 45s Warm status 35s Hot status 1s
Car charger	12—24V input 5V output
Wall charger	110－220V input 5V output
Battery	Chargeable changeable 3.7V 850mAh Li-ion battery
Standby	60hours
Storage Temp.	-40°C to +85°C
Operation Temp.	-20°C to +55°C
Humidity	5%--95% non-condensing

5 Usage

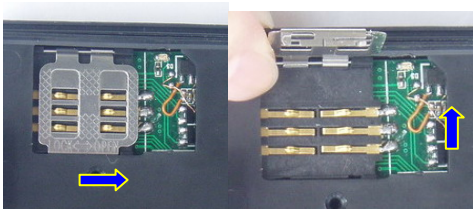
5.1 SIM card installation

Make sure that there is **no call transfer** and **call display is on**, and **PIN code off**. The SMS message must in Text format, can't be identified for PDU format.

Steps:

1 Open the rear cover, and pick out the battery.

2 Push the foil along and turn it left.



3 Put the SIM card into the holder, and turn the foil right and fasten it in place.

5.2 Battery and Charger

Do charge the battery to capacity in 8 -12 hours for first use. Please use the battery and charger provided by the manufacturer. This unit adopts built-in Li-ion battery, and full battery will support around 48 hours use on end. After first use, the battery can be charged fully in 3-5hours.

Cautions:

a: For it's Li-ion battery, which contains harmful chemicals and may burst, please don't bump, puncture it violently and keep it off fire.

b: Please charge the battery in time to keep it working normally.

5.3 Startup

- Put the SIM card and battery in place.
- Turn on the unit **outdoors** by pressing the “on/off” button until the indicator is on.
- For first use, please initialize the unit and restore it to default setting.(please refer to **5.4** for instruction.)
- In 10 or 40seconds, the unit will begin to work and acquire the GSM signals as well as the GPS signals. The indicator will keep flashing every 4 seconds when the unit has received the signals, otherwise it will keep on.
- When this unit receives GPS signals normally, you can use it and do all the following settings.

5.4 Initialization

Send “begin+password” in SMS to the unit, it will reply “begin ok” and initialize all the settings. (default password: 123456)

5.5 Change the password

Send SMS password+old password+space+new password to change the password.

Remark:

5.5.1 Be sure keep the new password in mind, you have to upload the software to restore the original setting in case of losing the new password.

5.5.2 Make sure the new password is in 6 digits, or else the tracker can not recognize the password.

5.6 Authorization

There are only 5 numbers able to be authorized.

5.6.1 Call the tracker for 10 times, it will make the cell phone number as the authorized number automatically.

5.6.2 Send SMS admin+password+space+cell phone number to set up a authorized number. The other authorized numbers should be set by the first authorized number. If the number is successfully authorized, the unit will reply “admin ok!” in SMS.

5.6.3 Send SMS noadmin+password+space+authorized number to delete the authorized number.

5.6.4 For roaming purpose, you have to add your country code ahead of the cell phone number, for example, please send admin123456 008613322221111 to tracker to set 13322221111 as an authorized number.

5.7 Real-time polling

5.7.1 If there is no authorized number, when any number dials up the unit, it will report a Geo-info; If there is already an authorized number, then it will not respond when an unauthorized number calls it up.

5.7.2 When an authorized number dials up the unit, it will hang up and report a real-time Geo-info as below:

5.8 Auto-Track

Report a Geo-info at 30s intervals to the authorized numbers for 5 times:

5.8.1 Set up: Send SMS t030s005n+password to the unit, it will report the Geo-info at 30s intervals for 5 times.(s: second, m: minute, h: hour). The setting must be in 3 digits and at maximum 255 in value.

5.8.2 Send SMS t030s***n+password to the unit, it will reply SMS heaps of times

5.8.3 Cancel: Send notn+password to delete the “ auto track ”

Remark: the interval must not be less than 20s.

5.9 Voice Surveillance

In this mode, the user can dial up the unit to monitor the voice (please refer to **5.10** for instruction).

5.10 Modes switch between “track” and “monitor”

5.10.1. The default mode is “track”.

5.10.2. Send SMS monitor+password to the unit, and it will reply “monitor ok!” and switch to “monitor”mode.

5.10.3. Send SMS tracker+password to the unit, it will reply “tracker ok!” and restore to “track” mode.

5.11 Geo-fence

Set up a geo-fence for the unit to restrict its movements within a district. The unit will send the message to the authorized numbers when it breaches the district.

5.11.1 Set up: When the unit stays immobile in a place for 3-10 minutes, the user can Send SMS stockade+password+space+latitude,longitude; latitude,longitude to unit to

set the restricted district. In case of breach, it will send SMS “stockade!+geo-info” to the authorized numbers.

Remark : The first latitude&longitude is coordinate of the top left corner of the Geo-fence, while the second latitude&longitude is the coordinate of the bottom right corner. It will alarm one time in each setting.

5.11.2 Cancel: Send SMS nostockade+password to deactivate this function.

This function will be out of effect after the unit moves outside the district.

5.12 Movement alert

5.12.1 Set up: When the unit stays immobile in a place for 3-10 minutes, the user can send SMS move+password to the unit, then the unit will reply “move ok!”. In case of such a movement, it will send SMS “Move” along with a Geo-info to the authorized numbers. It will alarm one time in each setting.

5.12.2 Cancel: Send SMS nomove+password to deactivate the movement alert.

Remark: This function will be out of effect after the unit moves outside the district.

5.13 Overspeed alert:

5.13.1 Set up: Send SMS speed+password+space+080 to the unit (suppose the speed is 80km/h), and it will reply “speed ok!”. When the target moves exceeding 80 km/h, the unit will send SMS speed+080!+Geo-info to the authorized numbers. It will alarm one time in each setting.

5.13.2 Cancel: Send SMS nospeed+password to deactivate the overspeed alert

Remark: It is recommended that the speed alarm is set at not less than 50km/h. For below that rate, it may cause the excursion of the GPS signal influenced by clounds etc.

5.14 IMEI checking:

Send SMS imei+password to the unit to check the IMEI number.

5.15 SOS button

Press the SOS for 3 second, it will send “ help me !+ Geo-info” to all the authorized numbers every 3 minutes. It will stop sending such a SMS when any authorized number reply SMS ”help me!” to the tracker.

5.16 Low battery alert

It begins to alert when it is 3.7V and sends you SMS in 30m interval.

SMS format: low battery+Geo-info.

5.17 Hidden number tracking

When a hidden authorized number calls the tracker, the tracker will reply SMS with the hidden number&Geo-info to all the authorized numbers.

5.17.1 Send SMS “hide number” to set up the hidden number.

5.17.2 Send SMS “nohide number” to delete the hidden number.

5.18 SMS center

5.18.1 Send SMS adminsms+password+space+cell phone number to set the SMS center.

If the SMS center is set up, when an authorized number sends SMS to the tracker, the tracker will reply a SMS with Geo-info & authorized number to SMS center.

5.18.2 Send SMS noadminsms+password to cancel the SMS center.

Response SMS format: authorized number+Geo-info

5.19 **GPRS setting**

In order to use GPRS function, the user needs to set IP, Port and APN (access point name) by either cell phone, or our PC software.

5.19.1 Set an IP address and port:

Setup: Send SMS adminip+123456+space+IP address+space+port.

If setup successful, the tracker will reply SMS adminip ok

Cancel: Send SMS noadminip+123456

5.19.2 Set APN

Setup: Send SMS apn+123456+space+specify apn.

If setup successful, the tracker will reply SMS “APN ok”.

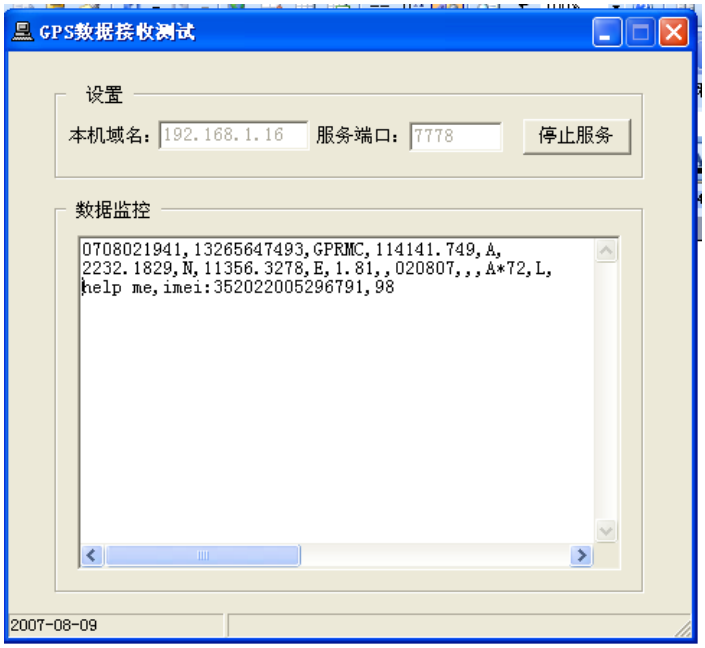
P.S. The old APN will be invalid when you set a new APN.

As soon as the IP & Port & APN are set up, the user can make a call or send SMS to tracker. The tracker will hand up the telephone and report the coordinates to IP address.

The message sent by tracker to IP address is as following:

Serial number + authorized number + GPRMC + GPS signal indicator + command + IMEI number + CRC16 checksum.

For example, it will send GPS coordinates as below illustrated



Notes:

1 Our gprs supports TCP or UDP protocol, so please confirm whether your GPRS webserver supports TCP or UDP protocol before having the order.

2 Please use the SIM card which is with GPRS function.

Pls use the following SMS to set up GMT time in the SMS for the tracker

time zone+password+space+ the customer's GMT TIME

Pls use the following SMS to set up YOUR website in the SMS for the tracker

home+password+space+ the customer's WEBSITE

home+password+space+space (if there is no website in the SMS)

6 Cautions

Please comply with the instructions to extend the unit life:

1. Keep the unit dry. Any liquid, i.e. rain, moisture, may destroy or damage the inside circuitry.

2. Don't use & store the unit in dusty places.

3. Don't put the unit in overheated or overcooled places.

4. Handle carefully. Don’t vibrate or shake it violently.

5. Clear the unit with a piece of dry cloth. Don’t clean in chemicals, detergent.

6. Don’t paint the unit, this may cause some foreign materials left in between the parts.

7. Don’t disassemble or refit the unit.

8. Please use the battery and charger provided by manufacturer. Using other batteries and chargers will cause unwanted situation.

9. Don’t dismount the antenna randomly, or use other antennas. This may interfere the transmission, and increase the radiation as well.

7 Faults & The solutions

Faults	Solution
Startup Fail	Check the battery and see if it is fully charged or correctly installed.
Hangup Fail	In existence of an authorized number, an unauthorized number dials up the unit. Please initialize the unit and re-set up the authorized numbers.
Monitor Fail	Check if the authorized number is setup or in the coverage of signals.
Location report in digits of zeros.	Don’t use it in the place beyond reach of signals. Place the unit outdoors, especially when starting it up.